Claims:

1. A method of debugging a processor, said method comprising:

   a) providing information about processor activity in real time; and

   b) associating the instructions executed by the processor with the information about processor activity.

2. A method according to claim 1, wherein:

   the information about processor activity includes an indication of at least one of whether the last instruction executed was a jump, a jump based on the contents of a register, a branch taken, or an instruction which encountered an exception.

3. A method according to claim 1, further comprising:

   c) providing information regarding the status of the processor when certain processor events occur, said certain processor events including at least one of a change in status of an interrupt line, an internal processor exception, and the execution of a jump instruction based on the contents of a register.